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A Study Of Cometary Dust **Using IRAS Observations**

Final Report
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Dr. Humberto Campins
Principal Investigator

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Summary

The purpose of this project was to construct images of comets observed by the Infrared Astronomical Satellite (IRAS), and study the dust in these objects. Two different types of IRAS observations, survey scans and additional observations (A0), were used to produce images free of instrumental effects. These images were analyzed using dynamical models that trace the trajectory of dust particles emitted from the nuclei of comets. The results from the analysis of the IRAS observations were combined with those of groundbased studies of the same comets. These results are discussed in three papers, two published and one submitted for publication in September 1991. Copies of these papers are appended.

Publications

1. Campins, H., Walker, R. G. , and Lien, D. J. IRAS Images of Comets Tempel 2 (1990) *Icarus* **86**, 228–235
2. Campins, H., Decher, R., Telesco, C. M., and Lien, D. J. Groundbased Thermal IR Images of Comets Tempel 2 (1990). *Icarus* **86**, 220–227.
3. Walker, R. G., Campins, H., and Schlapfer, M. High Resolution Images of P/Tempel 1 and P/Tempel 2 constructed from IRAS Survey Data. Submitted to *Asteroids Comets and Meteors* September 1991